

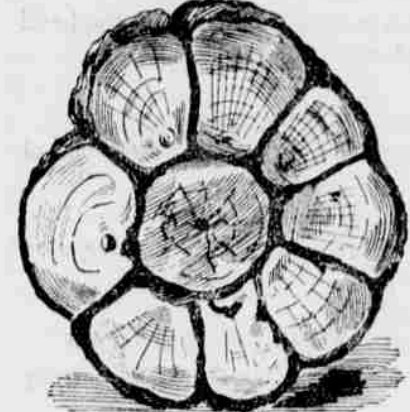
AGRICULTURAL HINTS.

ABOUT BRIDGE-GRAFTING.

How a Virtually Dead Apple Tree Was Restored to Life.

It was in the spring of 1874 that I found a Northern Spy tree in my orchard here in Chautauque county, N. Y., ruined by extreme cold on immature wood. The bark near the ground was split and bulged out from the wood. It was the only tree of that variety in my orchard, and although six inches in diameter, it had never borne much fruit, so slow is this kind to get to bearing.

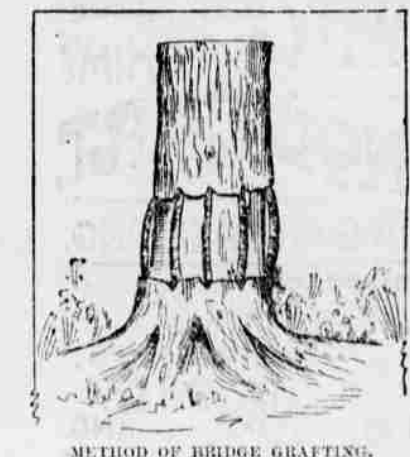
Feeling a little indignant from hope deferred, with my knife I cut off the loose bark, making a girdle about six



CROSS SECTION OF BRIDGE-GRAFTED TREES.

inches wide around the tree. It put out a sickly yellow foliage and lived through the summer. The next spring, noticing that nature was making a desperate effort to save its life, and moved by a feeling akin to pity, I concluded to lend a hand to help her and try an experiment in tree surgery. According to the method of bridge-grafting, I selected some healthy scions from another tree and stuck them in the ground in a shady place to keep them alive, but dormant, till the bark would peel. About June 1 I bridged over the barkless portion of the trunk with nine scions. In doing this the dead bark was cut away and an incision made above and another below the girdle, about an inch long in the live bark, which was carefully loosened with the knife.

The scions were bow-shaped, and cut slanting, so that their cut surfaces were in line to fit the tree. I pushed the butt end of this scion into the lower cut in the bark and then bent it till the point slipped into the corresponding



METHOD OF BRIDGE-GRAFTING.

cut—see Fig. 2. Grafting wax may be used, but I much prefer soil held in place about the girdled portion by sods or a box.

Eight of the scions lived, and the tree, which was as good as dead for one year, was restored to vigorous life. It has borne bountifully for years, and no one would suspect from appearance that anything had ever been wrong with it. Last fall when heavily loaded with apples, a hard wind broke off the top. I was curious to see a section of my experiment now grown solid with 17 annual rings. I saved out a section, a photograph of which is shown at Fig. 1. It has been said at some of our farmers' institutes that trees girdled by mice are not worth saving by "bridging," as they are sure to become diseased, hollow and unproductive. Here is an object-lesson for teachers of such theories—17 years and no hollow; only two years lost under treatment; 15 years of production with a promise of many more but for the casualty. Let those who say bridging does not pay figure out the difference if I had replaced that tree with one from the nursery, and be convinced. I have in my orchard several trees that have been saved in this manner, but no other was left over a year before treatment. I neglected this because I thought it a hopeless case on account of its great size.—Leroy Whitford, in Rural New Yorker.

LIVE STOCK NOTES.

EVERY horse owner should have a box stall or two in the barn. Box stalls are often convenient and useful.

Some of our exchanges are calling for more pasture and hay, and more stock. With the cattle market glutted, we cannot see the wisdom of the advice.

THERE is one way to compete in a glutted cattle market—and we may have one for a long time—and that is to breed and feed the very best cattle.

We are asked if there is any difference in jacks, so far as breeding qualities are concerned. Just as much difference as there is between bulls or stallions.

The ordinary man cannot judge a horse when he first sees him. Before you purchase a horse lead him down hill, drive him, and watch carefully every movement.

Does it pay to buy feed for stock? asks a subscriber. It depends, of course, upon circumstances. If we purchase feed we can keep more stock, and that means an improvement of the land. Still feed may be so high and stock so low that it will not pay.

CAN blindness in the horse be transmitted? we are asked. We have no doubt of it. There is, or was, a large district in Pennsylvania in which nearly all the horses were blind, and it was believed to be the result of breeding from blind stock. The laws of heredity operate very curiously.—Farmers' Voice.

IN GOOD CONDITION.

The Importance of Keeping Machinery in Proper Trim.

During the busy season, at least, it is important to keep all the machinery in good working order. A loose bolt or a missing screw will often cause a loss of many times the cost of a new one. It is not always this damage to the machinery that is all or even the greatest part of the loss, as in harvest or haying the damage to the machinery by a break is small compared with the loss of time and after the damage to the crop. Before starting in to harvest, care should be taken to overhaul machinery that has been used before and see that it is in good repair and ready for work. All bolts should be tightened and if any have been lost new ones should be put in their place. The working parts should be thoroughly cleaned up and well oiled, so that they will work smoothly. It is always good economy to use good oil and plenty of it, at the same time taking care not to use an excess, as too much in many cases is nearly as bad as not enough.

So far as possible avoid leaving machinery standing out in the hot sun when not in use. One of the best paying investments on the farm is a good shed, under which machinery that is used more or less through the season can be kept when not needed in the field.

The failure to give proper care to the machinery needed to carry on the work costs the farmers a good deal of money that could readily be saved. A few days' exposure to a hot sun is nearly or quite as injurious as one or two hard storms, and in many cases it would save time to bring it to the house and store under shelter rather than let it stand out, as more or less time is required to adjust it properly. In a majority of cases machinery will prove cheaper than hand labor and can readily be made to pay a good profit on its cost, provided, of course, it is cared for, so that it can be made to do what should reasonably be expected of it. In harvesting and haying, especially, machinery is necessary when it is important to push the work as much as possible, taking all reasonable advantages to save time. It is very often the case that machinery is damaged more by want of proper care than by using. It costs less to buy machinery in good working condition as long as it is worth repairing than to use as long as possible without any work and then be at the expense of giving a thorough overhauling, saying nothing of the increased risk of a breakdown at a time that a considerable loss would be occasioned. It rarely pays to manage machinery on the make-shift plan; it should either be kept in good working condition or be discarded for something that is worth keeping in good repair.—St. Louis Republic.

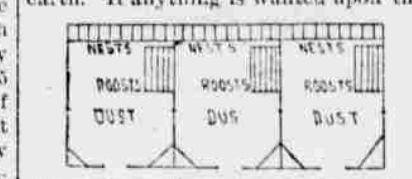
HANDY POULTRY HOUSE.

Its Designer Has Used It With Success for Some Time.

The accompanying sketch shows a laying house which I have been using with success for some time. It can be made of any size and for any cost you may feel able to afford. The one illustrated shows accommodations for sixty hens, or about what any farmer's wife will care for for the house and what



extra dozens she may have to sell or trade. It is convenient, simple of construction. Each pen is 26x16 feet, ample for a flock of twenty laying hens or pullets, and affording them more comfort than a smaller space would provide. The nest boxes are placed along the floor and roosting perches provided with each compartment. Each pen is connected with the other by means of a door opening from one pen to another. The floor is of wood, this being preferable in a laying-house to earth. If anything is wanted upon the



floor, clean, sharp gravel is the best article to use, as it can be easily renewed and it provides grit for them to use in grinding their food. The building should be about twelve or fifteen feet high, with ventilating windows in the upper eups, the windows being opened in hot weather, giving pure air and perfect ventilation to the building.—J. W. Canby, in Farm and Home.

Management of Hen Manure.

The most valuable property of hen manure is ammonia. If allowed to liberate it loses its value as a fertilizer. For the better preservation of the droppings a loose earthen floor of dry road dust is best, for it catches all of the droppings of the fowls when not on the perches, and the frequent dusting covers them and prevents the liberation of the ammonia. Common ground plaster is excellent to mix with manure. It can be sprinkled freely on the droppings during night and put away in barrels in a dry, cool place till needed. The dropping board should be movable, taken out every morning and scraped into the barrel and then shake a heavy layer of plaster over the manure each time; about ten parts of plaster (gypsum) to one of manure. A fine tooth rake made for this use will gather the loose droppings, which can be treated in the same way.—Stockman.

The Cellar's Ventilation.

Ventilation of the cellar is a problem. In the summer the windows may be kept open, but in building a barn or house with a cellar underneath, ventilation in winter must be considered. Of all methods that have been tried that of a chimney with an open fireplace has been found the best, as a fire not only permits of ridding the cellar of a portion of the moisture, but creates a draught which carries all foul air upward.

THE DAIRY.

TWO DAIRY POINTS.

A Practical Dairyman's Valuable Suggestions.

The rapid strides in dairying within recent years makes it imperative that the farmer who relies upon his dairy for support shall be active in brain, as well as of hand, else he is distanced by more observing and painstaking men. One of the first things to be looked after is a cow that will give a fair flow of milk ten or eleven months of the year, or to within six weeks or a month of coming fresh. The six months milking cow must give way to a more persistent milker. It does not pay to pasture a dry cow four months in the summer any better than to let her go without return for feed a corresponding length of time in winter. The "new era" in dairying has so revised the system of ration production that it is doubtful if pasture grass is any cheaper than the winter stores of feed, so that even if summer prices are low, the cow, to pay for her keeping, needs to bridge over as much as possible of the long period of non-production which was once deemed essential to her well-being. One reason why the cow should be a persistent milker is that the market is not satisfied with other than freshly-made goods, and pays top prices for no other. Grass butter made in June is no longer sold at high prices in November, but a constant supply is called for. The separator has appeared upon the scene to answer a new demand—a machine to take all of the fats out of the milk any day of the year, without regard to the time of lactation. When this milk is creamed by centrifugal force, with only a minimum of albumen and casein in it, and is properly ripened and churned, the flavor is maintained, and one hears little nowadays about such butter being low flavored, "because the cows are long in milk." The farmer, to get these long, persistent milkers, must raise them. The habit of persistent milk production is partially hereditary and partially the result of habit—training the heifer to keep up the flow. The money is not now made on a cow that gives a river of milk for a few months, and goes dry the larger part of the year. The demand is for a cow that will calve in October and give an average of twenty-five pounds of milk a day for 315 days. The day for cow-breed to count as a factor has passed. To be profitable, the cow needs to put all of her food into milk, and do it for year in and year out, and when at last "milked out," let the owner be content to give her remains decent burial and provide beef from other quarters.

The unusual activity displayed by our dairy inventors along the line of centrifugal power in creaming milk, indicates that there is a demand on the part of butter makers for a machine that does uniform and close work the year round, not merely to completely separate the cream from the milk while the cows are upon grass, and then fall for the balance of the year of getting much over eighty per cent. of the butter fats out of the milk. In these days of exceedingly close competition, every pound of butter saved in the creaming process over older and supposed unimprovable methods, is twenty-five cents added to profits. The idea that what was lost in the process of butter making was saved by the pig, does not hold good, as a pound of oil meal with skim milk has a feeding value about equal to the same weight of fat. While the invention of the cold, deep process of milk setting was a great advance, investigators like Drs. Babcock and Cook are finding that while the milk of individual cows may be perfectly creamed, that of other cows cannot be, and when it comes to a dairy cow over six months in milk, the losses begin to mount up, and the centrifugal machine will take out from a half pound to a pound and a quarter more butter fat from each 100 pounds of milk that can be obtained by gravity setting. This is plain. If by the use of a good centrifugal machine, the 25-pound butter cow can win an extra credit of forty pounds of thirty-cent butter, then \$12 to each cow would be a fair profit on an investment of \$125. The experiment stations, dairy schools and butter conferences have a large field of study and experiment before them the present year. It would seem that the dairy industry is not only exhibiting a great revolution in methods and practice. The demand of the market is constantly for fresher goods; this can only be accomplished by shortening the time between the cow and the butter package and lessening the chances for detracting influences. The separator shortens the time of cream extraction. The "starter" abbreviates the time of ripening the cream and working over and salting the butter in the churn, abridges the working-over part, while the express company annihilates distance. Will the butter maker of the next century improve very much upon this?—American Agriculturist.

Dairy Notes.

—The cows will soon begin to shed hair into the milk. To prevent this brush them off on the side over the udder where your head rubs against her; also brush the udder.—Colman's Rural World.

—Do not let that hard milking cow stay in the herd any longer than you can help it, for she is an aggravation to the milkers, who soon spoil her by neglecting to strip her clean. It is a most excellent plan, too, for the owner of the herd to take all the "hard cases" in the herd under his own special care, for he, being interested, is sure to be more charitable toward them.—Western Rural.

—One hundred million pounds of butter, and all strictly first-class, goes from Denmark to England each year. It is a trade of comparative recent growth, and has been brought about by governmental encouragement, practical dairy schools, and a careful study of progressive dairy science. By availing ourselves of the same means we may also become a great butter exporting country.—Ohio Farmer.

At the Cannon's Mouth.

Experiments were made during the last trial trip of the armed cruiser Beovut to determine the air-pressure at the mouth of a gun the moment of discharge. Rabbits were placed near the muzzles of the guns, and shot fired. In every case the animals fell dead at once. In order to test the probable effects of the enormous displacement of air upon human beings, figures made of straw were used. These were torn to pieces in every instance. The trials were made with long-bored twenty-four centimeter ring guns.—London News.

Niagara Falls Excursion, July 28.

The C. H. & D., whose magnificent excursions to Niagara Falls, Toronto and the Thousand Islands are always the banner excursions of the summer season, will run this year's from Cincinnati, Thursday, July 28. The route will be via Detroit and Michigan Central. The rates from Cincinnati to Niagara Falls and return will be \$5.00 and from Dayton \$4.50. Toronto and return will be a dollar higher and to Thousand Islands and return \$5.00 higher. Tickets will be good for a week returning. Make your arrangements to spend your vacation about this time and join the C. H. & D. excursion. There will be plenty of sleeping cars. For further particulars address any C. H. & D. agent or E. O. McCormick, G. P. & T. Agent, Cincinnati, O.

EVERY man expects to get his reward in the hereafter, but none his deserts.—Indianapolis Journal.

Before You Take a Pacific Slope

For the far west; before you go aboard your steamer, Pullman palace train or emigrant car, see to it that among your outfit is an adequate supply of Hostetter's Stomach Bitters, a medicinal safeguard specially suited to the wants of tourists, travelers, emigrants and summer sojourners. Cures nausea, dyspepsia, languor, heartburn, malaria, rheumatism, etc.

A MAN's political friends are not always the men he would like to trade horses with.—Columbus Post.

F. J. CHENEY & Co., Toledo, O., Proprietors of Hall's Catarrh Cure, offer \$100 reward for any case of catarrh that can not be cured by taking Hall's Catarrh Cure. Send for testimonials, free. Sold by Druggists, 75c.

A GREEN old age is all right. It is the green young age that is dangerous.—Galveston News.

PIMPLES are inexpressibly mortifying. Remedy—Glenn's Sulphur Soap. Hills Hair and Whisker Dye, 50 cents.

ONE of the great heroes of life is the man who has the nerve to get up early in the morning.

BRECHMAN'S PILLS stimulate the pylorus in the saliva, remove depression, give appetite, and make the sick well.

WHEN one jumps at a conclusion he rarely reaches it.—Dallas News.

SEA stories.—The decks.

PRICE and plenty—Half the price. ALL dogs of war are not West Pointers.

SAID Franklin: "He who takes a wife takes care." Therefore, my son, take care and do not take a wife.—Boston Transcript.

The fragrant mint has again made its appearance, but, as usual, it is going all to wash.—Baltimore American.

ELECTRICITY is a great educator. I think what it has done to make men see things in a new light.—Empire Gazette.

"Does your father keep horses?" "Well, not exactly, but he has the nightmare regularly."—Philadelphia Record.

Every thrifty farmer will keep his land well dressed, but he has no reason to be ashamed of a strawberry patch.—Lowell Courier.

"Yes, every man has his price," but he can't make his grocer agree with him.—Columbus Post.

Ten justice may not enjoy himself even when he is having a fine time.—Glens Falls Republican.

When a fly lights on a sheet of sticky paper, he realizes that he is better off.—Binghamton Leader.

No, my dear girl, a cent boat is not necessarily made of pussy willow.—Boston Transcript.

When a family row is made public there is usually pretty good reason for blaming both sides.—Puck.

The world is full of people who suppose that the art of conversation consists in asking questions.—Milwaukee Journal.

To be always praising a man has the effect of making those who would be his friends become his critics instead.

People generally get what they deserve without much effort, but they have to be exceedingly industrious if they secure all they want.—Milwaukee Journal.



ONE ENJOYS

Both the method and results when Syrup of Figs is taken; it is pleasant and refreshing to the taste, and acts gently yet promptly on the Kidneys, Liver and Bowels, cleanses the system effectually, dispels colds, head-aches and fevers and cures habitual constipation. Syrup of Figs is the only remedy of its kind ever produced, pleasing to the taste and acceptable to the stomach, prompt in its action and truly beneficial in its effects, prepared only from the most healthy and agreeable substances, its many excellent qualities commend it to all and have made it the most popular remedy known.

Syrup of Figs is for sale in 50c and \$1 bottles by all leading druggists. Any reliable druggist who may not have it on hand will procure it promptly for any one who wishes to try it. Do not accept any substitute.

CALIFORNIA FIG SYRUP CO. SAN FRANCISCO, CAL. LOUISVILLE, KY. NEW YORK, N.Y.

The Only One Ever Printed—Can You Find the Word?

There is a 3 inch display advertisement in this paper, this week, which has no two words alike except one word. The same is true of each new one appearing each week, from The Dr. Harter Medicine Co. This house places a "Crescent" on everything they make and publish. Look for it, send them the name of the word and they will return you book, beautiful lithographs or samples free.

The best business college—The school of experience.—Puck.

HEALTH TID-BITS save weak, nervous men. \$1 trial box 10c. Ohio Chemical Co., Cincinnati, O.

The standing army should be sent to the seat of war.

The Ram's Horn is published at Indianapolis, Indiana, at \$1.50 per year.

PRIETY is often but knee deep.—Boston Transcript.



YOU'RE THROUGH with Catarrh, finally and completely, —or you have \$500 in cash.

That's what is promised you, no matter how bad your case or of how long standing, by the proprietors of Dr. Sage's Catarrh Remedy. Catarrh can be cured. Not with the poisonous, irritating snuffs and strong, caustic solutions, that simply palliate for a time, or perhaps, drive the disease to the lungs—but with Dr. Sage's Remedy.

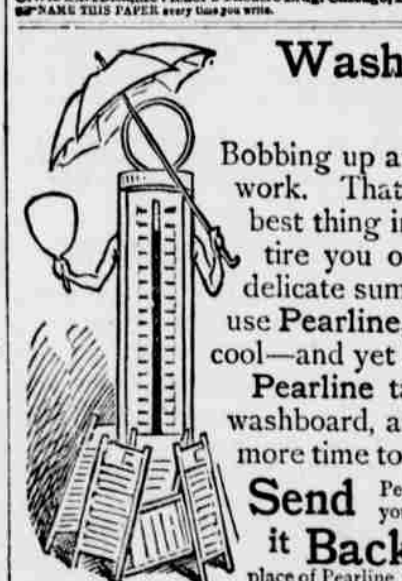
The worst cases yield to its mild, soothing, cleansing and healing properties. "Cold in the Head" needs but a few applications. Catarrhal Headache, and all the effects of Catarrh in the Head—such as offensive breath, loss or impairment of the senses of taste, smell and hearing, watering or weak eyes—are at once relieved and cured.

In thousands of cases, where everything else has failed, Dr. Sage's Remedy has produced perfect and permanent cures. That gives its proprietors faith to make the offer. It's \$500, or a cure. They mean to pay you, if they can't cure you. But they mean to cure you, and they can.

"August Flower"

Miss C. G. McCLAVE, School-teacher, 753 Park Place, Elmira, N. Y. "This Spring while away from home teaching my first term in a country school I was perfectly wretched with that human agony called dyspepsia. After dieting for two weeks and getting no better, a friend wrote me, suggesting that I take August Flower. The very next day I purchased a bottle. I am delighted to say that August Flower helped me so that I have quite recovered from my indisposition."

FAT FOLKS REDUCED. The only reliable remedy for reducing the body. No starvation, no inconvenience, and no bad effects. Strictly confidential. For circulars and testimonials, address Dr. J. C. F. McVicker, Theobald Building, Chicago, Ill. SEND THIS PAPER every day for free.



Washboards

Make It Warm.

Bobbing up and down over them is pretty hot work. That rub, rub, rub on them is the best thing in the world to warm you up, and tire you out, and wear holes in light and delicate summer garments. Why don't you use Pearlina, and take it easy? You can keep cool—and yet have the work better done.

Pearlina takes away the rubbing, and the washboard, and the warm work. It gives you more time to yourself—and saves your money.

Send it Back. Peddlers and some unscrupulous grocers will tell you "this is as good as" or "the same as Pearlina." IT'S FALSE—Pearlina is never peddled, and if your grocer sends you something in place of Pearlina, be honest—send it back. 300 JAMES PYLE, N. Y.

LOVELL DIAMOND CYCLES

For Ladies and Gents. Six styles in Pneumatic Cushion and Solid Tires. Diamond Frame, Steel Drop Forgings, Steel Tubing, Adjustable Ball Bearings in all running parts, including Pedals, Superior Saddle. Strictly HIGH GRADE in Every Particular. Send 6 cents in stamps for our 100-page illustrated catalogue of Guns, Rifles, Revolvers, Sporting Goods, etc.

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THE POT INSULTED THE KETTLE BECAUSE THE COOK HAD NOT USED

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GOOD COOKING DEMANDS CLEANLINESS. SAPOLIO SHOULD BE USED IN EVERY KITCHEN.

THROUGH PULLMAN BETWEEN ST. LOUIS AND DENVER, CHEYENNE, OGDEN and Salt Lake City.

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This is the ONLY THROUGH CAR LINE between above points, and makes the TRIP in 65 Hours. Excursion Rates now in effect from all points.

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RISE SUN STOVE POLISH

DO NOT BE DECEIVED. With Patent, Enamel, and Paint which stain the iron, and burn off. Use RISE SUN Stove Polish is Brilliant, Odorless, Durable, and the consumer pays for no tin or glass package with every purchase.

The best business college—The school of experience.—Puck.

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